

## **ABSTRACT OF THE DISCLOSURE**

A multi-chamber pacing system has a pulse generator for successively delivering pacing pulses to chambers of a patient's heart. Evoked response detectors having blanking intervals following the delivery of  
5 pacing pulses include sensing elements for sensing IEGM-signals from each of the heart chambers and an integrating unit that integrates the IEGM- signal within evoked response detection time windows after delivery of pacing pulses for detecting evoked response. The evoked response detection time window for a heart chamber contain at least one blanking interval resulting from  
10 delivery of a pacing pulse to another chamber and each of the sensed IEGM signals having a generally known morphology. An integral reconstructing unit reconstructs the time integral of the IEGM signal from one of the heart chambers in the blanking interval following delivery of a pacing pulse to another heart chamber.

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